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BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554

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IN THE MATTER OF  
REVIEW OF PIONEER'S PREFERENCE RULES  
(ET DOCKET No. 93-266)

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COMMENTS

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To: THE COMMISSION

**COMMENTS ON  
THE NOTICE OF PROPOSED RULE MAKING**

Corporate Technology Partners ("CTP") hereby submits the following comments in response to the Commission's Notice of Proposed Rule Making reviewing the Pioneer's Preference rules (the "NPRM"). CTP is a small business with net assets of less than \$6 million and average annual income for the last two years of far under \$2 million.<sup>1</sup> To date funding has been provided from the personal funds and borrowings of the three partners of CTP. These funds and other resources put into CTP by the partners have amounted to more than \$1.5 million to date, a very sizable commitment for the three CTP partners. Truly, CTP is one of those small businesses to which Commissioner Barrett referred as having "mortgaged their homes and their lives" to develop PCS technology and services.<sup>2</sup>

Despite its small size and limited funding, CTP has been a continuing leader in the emerging PCS industry. It first became involved in PCS in mid 1988, probably earlier than any other U.S. company except perhaps Bellcore. It was, we believe, the first company to introduce PCS to the FCC.<sup>3</sup> It established in 1989 the first PCS company in the U.S. It

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<sup>1</sup>This definition of small business for the purposes of PCS was proposed by the Commission in its Notice of Proposed Rule Making on Competitive Bidding, PP Docket No. 93-253, page 24, footnote 51.

<sup>2</sup>Comments of Commissioner Barrett at the Commission meeting announcing issuance of the NPRM.

<sup>3</sup>Letter to Dr. Thomas P. Stanley, dated January 31, 1989.

conducted in the fall of 1989 what we believe was the first large market study on PCS in the U.S. It co-invented with Bell Northern Research Personal Communications Integrator ("PCI"), the first fully articulated frequency sharing system for PCS and a system which CTP believes had seminal effect of development of later frequency sharing systems such as the APC "FAST" approach and Southwestern Bell "I-MAS" approach. On its own, CTP then invented Interference Sensing CDMA ("ISCDMA"). This is a frequency sharing technology which independent engineering studies<sup>4</sup> show has advantages in capacity, cost, flexibility, exportability and ease of regulation over competing frequency sharing technologies. Also, ISCDMA fully complies with the technical rules for PCS recently promulgated by the Commission.<sup>5</sup> It is for ISCDMA and related work on interfacing PCS to passive fiber optics and to coaxial cable (cable TV "COAX") that CTP has sought a Pioneer's Preference. This CTP work, particularly ISCDMA, is totally unique to CTP and owes derivation to no other technology or development work. In this uniqueness of technology development, CTP differs from almost all other PCS Pioneer's Preference applicants.

More recently, CTP was a founder in July, 1993 of the first national PCS consortium ("NPC") with the goal of establishing a national seamless interoperable PCS network. Furthermore, CTP has been an active participant in Commission proceedings involving PCS including appearing on the first Commission panel on PCS.<sup>6</sup>

We believe CTP's record of innovation in PCS cannot be matched by any company its size in America, or indeed by far larger companies seeking Pioneer's Preference. All of this work, and the expenditure of substantial funding and effort by CTP's partners, was driven by belief that Pioneer's Preferences would be available to reward innovation in PCS technology.

**I. PIONEER'S PREFERENCE SHOULD BE GRANTED TO SMALL BUSINESSES WHICH ARE PCS INNOVATORS WITHOUT REQUIRING THAT THEY PAY FOR LICENSES.**

The primary stated reason why the Commission appears to be considering changing the Pioneer's Preference rules is that: "... through its bidding efforts [an innovator] would

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<sup>4</sup>Studies were conducted by TSR Technologies, Inc. and in conjunction with LCC, Inc., and are appended to CTP's various Pioneer's Preference filings.

<sup>5</sup>Second Report and Order, GEN. Docket No. 90-314, released October 22, 1993, paragraphs 175 *et. seq.*, page 74.

<sup>6</sup>July, 1989.

primarily control whether it obtains the desired license."<sup>7</sup> This may be the case for a large Pioneer's Preference applicant which can raise substantial money for multiple bids, has presence in and thus many "desired" markets and can be sure to win at least one desired market. It is not the case for CTP. The desired market for CTP is a single market, its "home" BTA. CTP's home BTA is where CTP has done its experimentation, assessed the fixed microwave interference situation and can best provide service.

Despite CTP's innovative work, there is little assurance CTP will win its home market in the absence of a Pioneer's Preference. Others, less familiar with the probable costs of building PCS infrastructure, may well bid too high for CTP to follow (or more important, any financial backers of CTP to follow). While CTP may be able to get financial backing for the auction, CTP's financial backers would not be willing to authorize higher bidding just because CTP has been a PCS innovator. The economics of the PCS business are the same whether one is an innovator or not. Thus, it is rather unlikely CTP will get financial backing which will provide some assurance CTP will win a license for its desired market. CTP can only be assured of getting its desired market through the Pioneer's Preference process.

Because of this, CTP submits it is totally unfair to rescind the Pioneer's Preference rules insofar as they apply to small business.<sup>8</sup> As noted above, CTP has expended substantial funds and effort on reliance on the Pioneer's Preference rules. This money and effort could well have been used instead for the bidding, itself. In effect, by believing in the availability of Pioneer's Preferences, CTP has put itself in a worse financial situation to bid than those who have done nothing innovative but instead conserved their cash for the bidding.

Further, CTP is one among a handful of companies which to gain Pioneer's Preference revealed in its filings the details of its patent pending PCS work. There was a choice of keeping CTP's work quiet and protecting the CTP patent position or seeking Pioneer's Preference through revelation of the CTP work. CTP's reliance on the Commission's Pioneer's Preference rules has thus potentially jeopardized the strength of CTP's patent position.

Recision of the Pioneer's Preference rules for innovative small business under such circumstances seems clearly at odds with Congress's intent. Congress has required the

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<sup>7</sup>NPRM, paragraph 7, page 3.

<sup>8</sup>There may also be reasons to continue the Pioneer's Preference rules for larger business. However, access to financing and the practical existence of multiple desired markets for larger companies would seem to make continuation of Pioneer's Preference rules less necessary for larger businesses.

Commission to give "economic opportunity" to small business in PCS.<sup>9</sup> Economic opportunity should be a product of being a small business but also of being an innovator in PCS. A small business which has been an innovator in PCS should not be denied the economic opportunity from its innovation that was promised in the Pioneer's Preference rules.

**II. IF PIONEER'S PREFERENCE RULES ARE TO BE RESCINDED, A 35% DISCOUNT ON AUCTION BIDS SHOULD BE SUBSTITUTED FOR SMALL BUSINESS INNOVATORS.**

CTP believes that small businesses who are innovators should be given licenses without payment. However, should the Commission believe it must substitute an alternative approach to reward innovation, CTP believes the auction discount proposal is best. The percentage discount should be 35%, not 25%. A 35% discount means a small business innovator will be able to bid approximately 50% higher than it normally would to win its desired (*i.e.* home) BTA market. CTP believes overbidding by the unknowledgeable will be such that at least this 50% margin is needed to give small business PCS innovators some assurance they will be able to win their desired market. A 25% discount (or 33% bidding margin) would not be sufficient in many cases.

**III. PIONEER'S PREFERENCES SHOULD BE RESTRICTED TO SERVICES THAT USE INNOVATIVE TECHNOLOGIES, AND INNOVATIVE TECHNOLOGIES SHOULD BE DEFINED AS TECHNOLOGIES WHICH ARE UNIQUE IN THE SENSE OF UNIQUENESS IN THE PATENT LAWS.**

Many PCS Pioneer's Preference applicants have claimed their preference entitlement because they have conducted market research, because of appearance and comment in Commission proceedings, because they have conducted extensive public testing, because they have expended a large amount of money on PCS development or because they have introduced technologies, or combinations of technologies, that have been previously developed in Canada, Europe or by third parties in the U.S. All of this is or should be irrelevant to award of Pioneer's Preference. CTP has focused on technology development, and particularly frequency sharing technology, as the Pioneer's Preference rules seem clearly to say such technology innovation is to be the basis for Pioneer's Preference. Thus, CTP welcomes the Commission's proposal to clarify the Pioneer's Preference rules by restricting Pioneer's Preferences to technology innovation.

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<sup>9</sup>Notice of Proposed Rule Making on Competitive Bidding, PP Docket No. 93-253, released October 12, 1993, paragraph 12, page 5.

CTP feels, however, that technology innovation must be defined. The patent process is the best model for determination of innovation. CTP does not intend that the Commission turn into a second patent office. However, the patent office's insistence on uniqueness of innovation should be emulated. If an innovation is an obvious combination of previous technologies or has been previously publicly proposed, no Pioneer's Preference should be available. Applying this standard, and putting aside all the public relations hype about matters unrelated to technology innovation, the Commission will find that very few Pioneer's Preference applicants have in fact brought forward unique technologies for PCS. For example, how many applicants have developed something that is both key to PCS and is patentable? That there are very few is good news. Uniqueness provides a "bright line" test which will free the Pioneer's Preference process and the Commission from many possible challenges to Pioneer's Preference awards.<sup>10</sup>

The Commission should reexamine all of its tentative awards and denials of Pioneer's Preference for the degree of uniqueness of technology innovation of the applicant. It should then award final PCS Pioneer's Preferences only to companies which have brought forward, on their own, unique technological solutions for PCS that are usable in carrying out the technical rules for PCS established by the Commission.

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<sup>10</sup>Note that while patent challenge does occur, frequency of challenge in relation to number of patents granted is small compared to what will result/has resulted from current Pioneer's Preference rules.

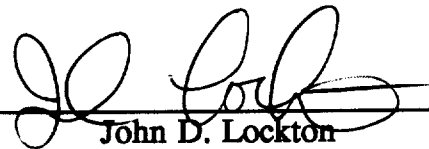
### **CONCLUSION**

It is appropriate that the Commission reexamine the Pioneer's Preference rules in connection with the Congressional requirement to auction PCS licenses. Also, CTP applauds tightening the Pioneer's Preference rules to require technology innovation, particularly if innovation is defined in terms of uniqueness. However, rescission of the Pioneer's Preference rules for small business will prevent those small businesses which have innovated the development of the PCS industry from gaining licenses in their home markets. At the very least, a 35% discount on auction bidding in home BTA should be given PCS innovators.

Respectfully submitted,

**CORPORATE TECHNOLOGY PARTNERS**

By: \_\_\_\_\_



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